

Garant
Diabolo solid carbide torus cutter R1 0.1, TiAlN, Ø DC × L1: 1X12 mm

Order data

Order number	206156 1X12
GTIN	4045197934086
Item class	11X

Description
Version:
GARANT Diabolo:

Special geometry, coating and carbide **for hard machining in the high-performance field.**
Suitable even for machining **electrolytic copper.**

Double-relief ground with 2 chamfers hollow ground for high-precision hard machining.

Recess angle $\alpha = 16^\circ$.

Tolerances:

- **Corner radius: $R_1 = \pm 0.0025$ mm.**
- **Neck Ø: $D_1 = 0 / -0.01$ mm.**

Note:

At greater tool overhang lengths, use a reduced value for a_p !

Values for:

side milling: $a_p = 0.1 \times D \times a_{p \text{ korr}}$

copying: $a_p = 0.05 \times D \times a_{p \text{ korr}}$

To calculate the feed rate v_f please use the actual speed of the machine (the maximum possible speed)! e.g: $v_f = 18000 \text{ [rpm]} \times f_z \text{ [mm/Z]} \times z$

No. of teeth Z: 2

Helix angle: 30 degrees

Shank: DIN 6535 HA to h5

No. of teeth Z: 2

Flute length L_c : 1 mm

Corner radius R_1 : 0.1 mm

Overhang length L_1 incl. recess: 12 mm

Recess Ø D_1 : 0.95 mm

Overall length L: 55 mm

Technical description

Helix angle	30 degrees
Shank $\varnothing D_s$	4 mm
Flute length L_c	1 mm
Correction factor $a_{p,corr}$	0.35
Feed f_z for copy milling in steel < 65 HRC	0.015 mm
No. of teeth Z	2
Corner radius R_1	0.1 mm
Cutting edge $\varnothing D_c$	1 mm
Feed f_z for side milling in steel < 65 HRC	0.015 mm
Overall length L	55 mm
Overhang length L_1 incl. recess	12 mm
Recess $\varnothing D_1$	0.95 mm
Shank	DIN 6535 HA to h5
Series	Diabolo
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	H
Tolerance nominal \varnothing	0 / -0.005
Direction of infeed	horizontal, oblique and vertical
Cutting width a_e for milling operation	0.05×D for copy milling
Cutting width a_e for milling operation	0.05×D for copy milling
Through-coolant	no
Colour ring	red
Type of product	End mill